

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

17. (**currently amended**) A supply element for a laboratory microchip with a microfluid structure ~~for at least one of chemical, physical, or biological processing,~~ the supply element comprising:

at least one substance-containing ~~first-supplier~~ including adapted to contain a substance, said at least one ~~first~~ substance supplier having a substance seal for maintaining the substance therein in the particular supplier, the substance supplier and seal therefor having a size, position, material and shape for causing the seal thereof arranged to be opened to the microchip in response to the supply element and the microchip being joined together ~~to enable and for enabling~~ said substance to be transferred from said at least one ~~first-substance~~ substance supplier to a ~~second-substance~~ substance supplier disposed within the microchip, the substance supplier in the supply element being different from the substance supplier in the microchip.

18. (**currently amended**) The supply element of claim 17, wherein said seal of said at ~~least one first-substance~~ substance supplier of the supply element comprises a chemically resistant substance.

19. (**currently amended**) The supply element of claim 17, wherein said seal of said at ~~least one first-substance~~ substance supplier of the supply element comprises a wax.

20. **(currently amended):** The supply element of claim 17, wherein said ~~at least one first substance~~ supplier of the supply element comprises at least one end sealed by a membrane that is flush with a side surface of the supply element.

21. **(previously presented):** The supply element of claim 20, wherein said membrane comprises a chemically resistant material.

22. **(previously presented):** The supply element of claim 20, wherein said membrane comprises one of a metal or gas permeable polymer.

23. **(currently amended):** The supply element of claim 17, wherein said substance of said ~~first substance~~ supplier of the supply element comprises at least one substance sample.

24. **(currently amended):** The supply element of claim 17, wherein said substance of said ~~first substance~~ supplier of the supply element comprises at least one substance reagent.

25. **(currently amended):** The supply element of claim 17, wherein said supply element includes a plurality of said substance containing suppliers, the substance of one of said first supplier plural suppliers of the supply element including an analyte, the substance of another of the said plural substance suppliers of the supply element including a reagent for the analyte comprises at least one substance sample and at least one substance reagentsaid analyte supplier having an analyte seal for maintaining the analyte therein in the particular supplier, the analyte supplier and seal therefor having a size, position, material and shape for causing the seal thereof to be opened to the microchip in response to the supply element and the microchip being joined together and for causing said analyte to be transferred from said at least one analyte supplier to an analyte supplier disposed within the microchip; said reagent supplier having a

reagent seal for maintaining the reagent therein in the particular supplier, the reagent supplier and seal therefor having a size, position, material and shape for causing the seal thereof to be opened to the microchip in response to the supply element and the microchip being joined together and for causing said reagent to be transferred from said at least one reagent supplier to a reagent supplier disposed within the microchip.

26. **(currently amended):** The supply element of claim 17, further comprising a ~~third-potential~~ supplier to transfer a potential to the microchip, said ~~third-potential~~ supplier of the supply element being arranged to be coupled to a corresponding ~~fourth-potential~~ supplier disposed within the microchip.

27. **(currently amended):** The supply element of claim 17, further comprising an attachment arrangement to releasably attach the supply element to the supply equipment, wherein said arrangement comprises a bayonet lock.

28. **(currently amended):** A supply element for a laboratory microchip with a microfluid structure for at least one of chemical, physical, or biological processing, the supply element comprising:

\_\_\_\_\_ at least one substance-containing substance supplier adapted to contain a substance, said at least one substance supplier having a seal arranged to be opened to the microchip in response to the supply element and the microchip being joined together to enable said substance to be transferred from said at least one substance supplier to a substance supplier disposed within the microchip, the supply element further comprising:

\_\_\_\_\_ an attachment arrangement to releasably attach the supply element to the supply equipment. ~~The supply element of claim 27, wherein said attachment arrangement comprises comprising a bayonet lock.~~

29. (previously presented): The supply element of claim 17, further comprising a first coding arrangement to identify the supply element to a second corresponding coding arrangement for supply equipment.

30. (currently amended): The supply element of claim 17, further comprising first and second assemblies, said ~~first-second~~ assembly including a module ~~adapted to carry~~ carrying (1) said supply element at least one substance and (2) supply equipment connected to the at least one substance for supplying the at least one substance supplier of the supply element from the substance supplier to the substance supplier in the microchip, and said module being ~~adapted to be releasably connected~~ connectable to said ~~second~~ first assembly.

31. (currently amended): The supply element of claim 17, wherein said seal of said at least one ~~first-substance~~ supplier of the supply element is adapted to be pierced by an end of a linkage between the supplier of the supply element and said ~~said second~~ supplier of the microchip to enable said substance to be transferred from said at least one first supplier of the supply element to the ~~second~~ supplier of the microchip via the linkage.

32. (canceled)

33. (currently amended) The method of claim ~~3257~~, wherein opening said seal of said ~~at least one third~~ supplier of the supply element comprises opening a seal comprising a chemically resistant substance.

34. (currently amended) The method of claim ~~3257~~, wherein opening said seal of said ~~at least one third~~ supplier of the supply element comprises opening a seal comprising a wax.

35. (currently amended) The method of claim ~~3257~~, further in combination with comprising sealing at least one end of the ~~of at least one third~~ supplier of the supply element

with a membrane that is flush with a side surface of the supply element.

36. (currently amended) The method of claim ~~35~~57, wherein sealing at least one end of ~~at least one third the~~ the supplier of the supply element with a membrane comprises sealing with a membrane comprising a chemically resistant material.

37. (currently amended) The method of claim 35, wherein sealing at least one end of ~~at least one third the~~ the supplier of the supply element with a membrane comprises sealing with a membrane comprising one of a metal or a gas-permeable polymer.

38. (currently amended) The method of claim ~~32~~57, ~~wherein containing a substance in at least one substance containing third further in combination with sealing an analyte as the substance in the~~ supplier of the supply element comprises containing at least one substance sample.

39. (currently amended) The method of claim ~~32~~57, ~~wherein containing a substance in at least one substance containing third further in combination with sealing a reagent as the substance in the~~ supplier of the supply element comprises at least one substance reagent.

40. (currently amended) The method of claim ~~32~~57, wherein the supply element includes a plurality of the sealed substance sources, one of the plurality of sealed sources being a reagent source, another of the plurality of the sealed sources being an analyte source, the method further comprising supplying the reagent and analyte to the microfluid structure by breaking the seals of the reagent and analyte sources~~containing a substance in at least one substance containing third supplier of the supply element comprises containing at least one substance sample and at least one substance reagent.~~

41. (currently amended) The method of claim ~~32~~57, further comprising coupling a potential fourth ~~fourth~~ supplier disposed within the supply element to ~~the a~~ a corresponding

~~second-potential~~ supplier of the microchip and transferring a potential from the ~~fourth-potential~~ supplier of the supply element to the ~~second-potential~~ supplier of the microchip.

42. **(currently amended):** The method of claim 3257, further comprising releasably attaching the supply element to supply equipment.

43. **(currently amended):** A method of operating a supply element for a laboratory microchip with a substance source, a microfluid structure connected to the microchip substance source, the method being practiced with a supply element including a sealed substance source, the method comprising:

opening a seal in said substance source of the supply element in response to the supply element and the microchip being joined together;

while the seal is open transferring the substance from said substance source of the supply element to the supplier disposed in the microchip;

moving the substance from the supplier disposed in the microchip to the microfluid structure by applying a potential to the microchip; and

releasably attaching the supply element to the supply equipment. ~~The method of claim 42, wherein releasably attaching the supply element to supply equipment comprises comprises-releasably attaching with a bayonet lock.~~

44. **(currently amended):** The method of claim 3257, further comprising identifying the supply element to a second corresponding coding arrangement of supply equipment with a first coding arrangement.

45. **(currently amended)** The method of claim 3257, further comprising ~~containing-connecting~~ a module carrying said supply element with a first assembly and releasably connecting said module to ~~said a second assembly with a second assembly.~~

46. (currently amended) The method of claim 3257, ~~further comprising wherein the seal is opened by piercing said seal of said at least one third supplier of the supply element with an end of said first supplier of the microchip and then transferring said substance to be transferred from said at least one third supplier substance source of the supply element to the first substance supplier of the microchip.~~

47. (currently amended) A combination comprising: a supply element and ~~combined with a laboratory microchip, the combination comprising a microfluid structure disposed within the microchip~~ having disposed therein

(a) a microfluid structure~~and adapted for at least one of chemical, physical, or biological processing;~~

(b) a first substance supplier disposed within the microchip and adapted to supply substances substance to other portions of the microchip; and

(c) a potential supplying arrangement second supplier disposed within the microchip and adapted to supply a potential to the microchip to move for moving substances along paths corresponding to the microfluid structure; and

~~at least one substance containing third supplier disposed within the supply element including a source for supplying a substance to the supplier disposed in the microchip, and adapted to contain a substance; said substance supply source at least one third supplier of the supply element having a seal confining the substance of the source, the seal being arranged to be opened and supply the confined substance of the source to the substance supplier disposed in the microchip in response to the supply element and the microchip being joined together to enable said substance to be transferred from said at least one third supplier of the supply element to the first supplier of the microchip.~~

48. (currently amended) The combination of claim 47 wherein the supply element has disposed therein an additional ~~combined with a laboratory microchip of claim 47, further comprising a fourth supplier disposed within the supply element to transfer for transferring the potential to the potential supplying arrangement of the microchip, said fourth supplier being arranged to be coupled to the corresponding second supplier of the microchip.~~

49. (currently amended) The combination of supply element combined with a laboratory microchip of claim 47, further comprising first and second assemblies, said first assembly including a module adapted to carry said supply element and supply equipment and said module of said first assembly being adapted to be releasably connected to said second assembly.

50. (currently amended) The combinations ~~supply element combined with a laboratory microchip of claim 47, wherein said seal of said at least one third supplier source of the supply element is adapted to be pierced by an end of said first supplier of the microchip to enable said substance to be transferred from said substance source at least one third supplier of the supply element to the first supplier of the microchip.~~

51. (currently amended) A method of operating a supply element combined with a laboratory microchip, the laboratory microchip having a microfluid structure; the method comprising:

~~providing the laboratory microchip with a microfluid structure adapted for at least one of chemical, physical, or biological processing;~~

supplying substances to passages in the microchip ~~with from a first substance supplier disposed within the microchip;~~

moving substances in the passages by supplying a potential potentials to regions



~~in the microchip with a second supplier disposed within the microchip to move substances corresponding to the microfluid structure;~~

~~containing~~ a substance in at least one substance-containing ~~third~~ supplier being disposed within the supply element;

opening a seal in said at least one ~~third~~ substance containing supplier disposed within of the supply element to the microchip in response to the supply element and the microchip being joined together; and

while the seal is open transferring said substance from said ~~at least one third~~ supplier of the supply element to the ~~first~~ substance supplier of the microchip.

52. **(currently amended)** The method of claim 51, wherein opening said seal in said ~~at least one third~~ substance supplier of the supply element comprises opening a seal comprising a chemically resistant substance.

53. **(currently amended):** The method of claim 51, further comprising sealing at least one end of at least one ~~third~~ substance supplier of the supply element with a membrane that is flush with a side surface of the supply element.

54. **(currently amended):** The method of claim 53, wherein sealing at least one end of said at least one ~~third~~ substance supplier of the supply element with a membrane comprises sealing with a membrane comprising a chemically resistant material.

55. **(currently amended):** The method of claim 53, wherein sealing at least one end of said at least one ~~third~~ substance supplier of the supply element with a membrane comprises sealing with a membrane comprising one of a metal or a gas-permeable polymer.

56. **(new)** The supply element of claim 17 in combination with a microchip having a substance supplier, the microchip substance supplier being adapted to be connected in

flow relation with the substance supplier of the supply element in response to the seal being opened.

57. (new) A method of operating a supply element for a laboratory microchip with a substance source, a microfluid structure connected to the microchip substance source, the method being practiced with a supply element including a sealed substance source, the method comprising:

opening a seal in said substance source of the supply element in response to the supply element and the microchip being joined together;

while the seal is open transferring the substance from said substance source of the supply element to the supplier disposed in the microchip; and

moving the substance from the supplier disposed in the microchip to the microfluid structure by applying a potential to the microchip.

58. (new) The combination of claim 56 wherein said seal of substance supplier of the supply element comprises a chemically resistant substance.

59 (new) The combination of claim 56 wherein said seal of said supplier of the supply element comprises a wax.

60. (new) The combination of claim 56 wherein said supplier of the supply element comprises at least one end sealed by a membrane that is flush with a side surface of the supply element.

61. (new) The combination of claim 60 wherein said membrane comprises a chemically resistant material.

62. (new) The combination of claim 60 wherein said membrane comprises one of a metal or gas permeable polymer.

Claims 17-25, 27, 30 and 31, as previously submitted, were not anticipated Lebel et al. (US 6,045,755). Lebel et al. does not disclose a supply element for a laboratory microchip with a microfluid structure, wherein a seal is opened to the microchip in response to the supply element and the microchip being joined together, as previously defined by claim 17, upon which claims 18-25, 27, 30 and 31 depend. However, to emphasize the distinction between the present invention and Lebel et al. more particularly, claim 17 now requires the substance supplier to have a size, position, material and shape for causing the seal thereof to be opened to the microchip in response to the supply element and the microchip being joined together and for causing the substance to be transferred from the substance supplier to a substance supplier disposed within the microchip. The substance supplier within the supply element is also required to differ from the substance supplier in the microchip.

Lebel et al. is not germane to the structure of claim 17 because Lebel et al. does not disclose a supplier for a microchip and does include the foregoing limitations. Based on the foregoing, the anticipation rejection based on Lebel should be withdrawn.

Applicant has added claims 56 and 58-62 and replaced claim 32 with claim 57. Claims 56 and 58-62 depend, either directly or indirectly on claim 17, and are allowable with them. In addition, these claims define the combination of the supply unit and the microchip. Claim 57, as well as all other extant claims, define a sealed source with a substance, wherein the seal is effectively broken in response to joining of the substance supplier and the microchip.

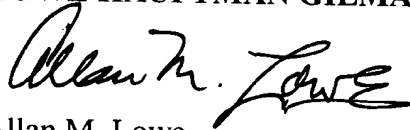
Applicant traverses the rejection of claims 17-21, 23-27, 29-42 and 44-55 as being anticipated by Chow (US 6,071,478). The office action includes copious quotes from the Chow reference. However, the office action fails to indicate where Chow includes a seal, as defined by each of the claims rejected as being anticipated by Chow. Consequently, the rejection based on Chow is incorrect and must be withdrawn.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance are respectfully requested and deemed in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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